

Businesses have been applying to the Department of Natural Resources (DNR) for air operation permits since 1985. Changes to the Air Operation Permit Program, as a result of the Clean Air Act Amendments of 1990, will require many small businesses to obtain air permits. Whether your business needs a permit will often depend on where your business is located and the kinds and quantities of pollutants your business puts into the air.

Why Do Small Businesses Need Permits?

In response to the 1990 Clean Air Amendments, states were required to expand their permit programs to include smaller sources of air pollution. This is part of a nationwide attempt to control and reduce air pollution and improve public health. One small business may not create a large amount of air pollution. But when you combine the emissions from numerous businesses, the air pollution level becomes much more significant.

What is an Air Operation Permit?

An Air Operation Permit is basically a contract between you, DNR and the public. The permit is a legal document identifying all air pollution regulations that apply to your facility. In your permit, you and the DNR set mutually agreeable conditions for all the regulated processes within your facility that generate air pollution. Those conditions tell you how to comply with the regulations. Some common regulated processes include:

- * Manufacturing Lines
- * Painting or Coating Operations (such as spray booths)
- * Boilers or Furnaces
- * Fugitive Emission Sources (such as sawdust)

What Types of Businesses Need a Permit?

All types of businesses may need to apply for an air operation permit based on their emissions. Evaporation from paints, printing inks, other coatings or cleaning solvents are examples emissions that are regulated. Listed here are just some of the types of small businesses that may need an operation permit:

- > Dry Cleaners
 - > Lithographic Printers
 - > Motor Vehicle Refinishing Shops
 - > Solvent Parts Cleaners
 - > Users of Industrial Adhesives
 - > Wood Furniture Manufacturers
 - > Metal Finishing Operations
 - > Painting and Coating Operations

Air Permit

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Are There Any Fees for an Air Operation Permit?

There are no direct fees that you are required to pay to be issued an operation permit. But, everyone who is required to get an operation permit is required to pay the annual Air Emissions Inventory fees based on the actual emissions you report for that year.

If, in the process of reviewing your permit application, the DNR permit writer discovers a process line that should have received a construction permit before it was installed or modified, you will be required to pay construction

permit fees for that process. You can obtain a fact sheet from the Small Business Clean Air Assistance Program (SBCAAP) on Construction Permits to get fact sheets on the process and to find out about those fees.

Am I Required to Get an Air Operation Permit for My Business?

All businesses are required to get an air operation permit unless they meet a specific exemption or a general exemption. Both of these exemptions are further explained below.

Specific Exemptions:

Specific exemptions common to small businesses are listed below. An existing business that might be exempt under these categories can only consist of **one** of the following air pollution sources. If you have more than one, contact SBCAAP for assistance because a limited combination is allowed.

- Painting or coating operations that emit or will emit no more than 1,666 pounds of organic compounds per month, which are measured prior to entering any emission control device.
- Graphic arts operations that emit or will emit no more than 1,666 pounds of organic compounds per month, which are measured prior to entering any emission control device.
- Motor vehicle refinishing shops that emit or will emit no more than 1,666 pounds of organic compounds per month, which are measured prior to entering any emission control device.
- Cold cleaning equipment with a total air to vapor interface of 1.0 square meters or less during operation.
- Open top vapor degreasing equipment with a total air to vapor interface of 1.0 square meters or less during operation.
- Dry cleaning operations with a total maximum operating capacity for all machines of 75 pounds of clothes per hour.
- Gasoline dispensing facilities that dispense gasoline or other petroleum products.

- Grain storage facilities with an average of less than 5500 tons grain received per month.
- Grain processing facilities with an average of less than 4500 tons per month.

This is only a partial list. A complete list of specific exemptions can be obtained from your local DNR permit engineer or the SBCAAP. If you are not exempt under the specific exemptions, then you can evaluate whether you meet the general exemptions.

General Exemption and Maximum Theoretical Emissions (MTE):

A general exemption is based on your facility's Maximum Theoretical Emissions (MTE). This is a calculation of the greatest possible amount of air pollution your business could emit if you operated at maximum production capacity, 24 hours a day, 365 days a year, without any air pollution control devices. Your MTE needs to be less than the air operation program limits for the following different pollutants:

▶ Volatile Organic Compounds (VOCs), Particulate Matter (PM), Nitrogen Oxides (NOx)	5.7 lbs/hour
▶ Sulfur Dioxide (SO₂) or Carbon Monoxide (CO)	9 lbs/hour
▶ A Single Federal Hazardous Air Pollutant*	10 tons/year
▶ Combination of any Federal Hazardous Air Pollutants*	25 tons/year
▶ Any State Hazardous Air Pollutant	Greater than ch. NR 445 table value.

**There are 188 federal hazardous air pollutants as determined by the Environmental Protection Agency (EPA). There are also over 400 state hazardous air pollutants. If you need help in determining whether you have any hazardous air pollutants, look at your material safety data sheets, contact your suppliers or call the SBCAAP. Also, SBCAAP has a fact sheet on the State Hazardous Air Pollutant program that may help.*

If your calculations show that your MTE is less than the above emission rates, your facility will not need to apply for an air operation permit. (You should keep a copy of any of the calculations you do to support your exemption claim.)

Calculation Example:

Here's a general example of how to figure out your MTE for the VOCs in a paint spraying operation:

- 1 Find out the **highest VOC content** in the material(s) you use. (VOC lb/gal)
- 2 Determine the maximum amount of paint you can use in one hour. (gal/hour)
- 3 Calculate how much VOC you would emit if you used this amount of material for 24 hours a day for a year. (24 hours x 365 days = 8,760 hours)

Example:

VOC per gallon: 6.7 lb/gal
Maximum usage of material: 4 gal/hr

$$\begin{aligned} 6.7 \text{ lb/gal} \times 4 \text{ gal/hr} &= 26.8 \text{ lb/hr} \\ 26.8 \text{ lb/hr} \times 8760 \text{ hr/yr} &= 234,768 \text{ lb/yr} \\ 234,768 \text{ lb/year} / 2000 \text{ lb/ton} &= \mathbf{117 \text{ tons/yr}} \end{aligned}$$

When calculating emissions, make sure to include all possible sources of air pollution. For example, a coating operation calculating organic compound emissions should include all coatings and all clean up solvents used and you may also need to include VOCs from fuel combustion or other sources where VOCs are created in the process. The information needed for these calculations can be obtained from invoices, material safety data sheets (MSDS), and other information readily available from your suppliers. The USEPA has a resource of emission factors for specific processes. You can find this at:

<http://www.epa.gov/ttn/chief/ap42/index.html>

If you determine through these calculations that your business does not need an Air Operation Permit, you should maintain sufficient records to support your determination, in case you are ever questioned. Also, you can request a letter of exemption from the DNR, if you want to keep this on file. (DNR will issue an exemption letter only after the review of a complete application.)

In this example above, the source exceeds the 5.7 pounds/hour VOC exemption and would need to apply for an air operation permit.

If your facility's physical design or equipment makes it impossible for your business to operate at this level, then you may be able to calculate your MTE within your business' operational limits. Things like a conveyor line speed, if it limits the number of parts you can paint in an hour, can be taken into account.

I Need a Permit...Now What?

If your MTE calculations show you need an air operation permit, your next step is to identify what type of permit you'll need. You do this by calculating your facility's "potential to emit" (PTE). Your potential to emit will show if you're a "major source" of air pollution. "PTE" and "Major Source" are explained below.

Potential to Emit:

Like the MTE calculations, when figuring out your PTE you look at your business' air pollution emissions at maximum production capacity, 24 hours a day, 365 days per year. This PTE calculation may be different from your maximum theoretical emissions calculation because certain allowances can be made such as physical or operational limits on your production capacity or use of existing air pollution control equipment. However, any allowances must be enforced in an existing air permit or by an existing emission standard. Examples of these allowances are:

- Any physical or operational limits on your facility's capacity;
- Air pollution control devices;
- Restriction on hours of operations; or
- Restrictions or type or amount of material combusted, stored or processed.

Major Source:

If your PTE calculations show that your facility has the potential to emit more than or equal to any of the following limits, you are a major source.

- Any single air contaminant **100 tons/year**
- Volatile organic compounds **25 tons/year**
in Kenosha, Milwaukee, Ozaukee,
Racine, Washington and Waukesha Counties
- Single hazardous air pollutant **10 tons/year**
- Total of all hazardous air pollutants **25 tons/year**

What Type of Permit Should I Apply For?

As a major source, you will need one of two types of permits. A "Title V Permit" (also called a "Part 70" Permit) is for businesses with a PTE over the threshold values listed previously. A "Synthetic Minor" permit is for a business who has the potential to be a major source, but have agreed by permit conditions to stay under major source emission limits. (This

could be done by requesting restrictions on hours of operation, type or amount of material processed, etc., to limit PTE.) The Synthetic Minor Permit is designed to have an easier application process; however, it may limit your business' future growth. You need to decide which type of permit suits your situation.

If your business is not a major source, you will need a "State Operation Permit" (also called a "Non-Part 70 Permit"). It is anticipated that many of the state's smaller businesses will need to apply for a Non Part 70 Permit.

What is Your Responsibility?

It is your responsibility as a business owner to determine whether you need an Air Operation Permit and if so, to submit a permit application to the DNR. It is illegal to operate your business without an Air Operation Permit if your business is required to have one. To request a permit application packet, contact the DNR office closest to your business.

If you have determined you are exempt according to the information provided previously, then you do not have to go any further in reviewing the operation permit requirements (i.e. do not worry about inclusion levels for each pollutant you emit). Your only responsibility from this point will be to maintain periodic records necessary to show you continue to meet any of the exemptions that are NOT based on MTEs (i.e. *1666 pounds VOC per month* is based on actual production levels). The records will need to match the time period used in the exemption level (i.e. monthly records to show you meet 1666 pounds VOC per month). For those exemption levels based on MTE, you just need to retain the calculations you used to decide that you were exempt.

If you do need an operation permit, providing a complete and accurate permit application as well as accurate supporting information in response to a request by a permit reviewer at DNR is a very important part of the facility owner's responsibility. This can involve many details that may or may not be easily available to the owner of a facility. If the information required for the application or requested by the permit reviewer is difficult for you to figure out, you may need to hire a consultant to help you. DNR permit writers can only offer suggestions on possible options or guidance on where to look for the information you must provide them.

The SBCAAP does have a couple fact sheets on consultants:

- ① A list of consultants.
- ② Some things to keep in mind and important questions to ask when hiring a consultant.

Contact us if you would like copies of these.

Application Deadlines

The permitting application deadlines for existing facilities have all passed. Any existing facility that is presently exempt from an operation permit based on the specific exemption categories must submit an application for an operation permit prior to exceeding the exemption level.

What Are the Permit Review Steps?

First a DNR permit engineer reviews the permit application. Once the review is complete, DNR will prepare a preliminary decision on whether to approve or deny the permit, and publishes a notice in your local paper. The notice tells the public they have 30 days from the date that paper was published to comment on the facility being permitted.

If the public shows significant interest in the permit or someone specifically requests one, the DNR will schedule a public hearing within 60 days after the end of the public comment period. Then DNR will issue or deny the permit within 60 days after the close of the public hearing. Note that this means a public hearing could add up to 120 days to the process. If there is minimal interest during public comment, DNR can issue the permit soon after the 30 days is up.

Now That I Have My Draft Permit?

Pay attention to the specific requirements in the permit. The draft permit (during public comment) is the stage when it is easiest to negotiate if you feel certain permit requirements will be difficult to meet. Some issues to watch for:

Any new or existing process may be required to perform a stack test to demonstrate the emissions in the exhaust meet the limits in the regulations. Duct work and exhaust stacks may need to have test ports installed to allow testing equipment to be placed in the exhaust stream. See the **Stack Testing** fact sheet from SBCAAP for details.

Control devices as well as the equipment designed to capture emissions from your process and carry

them to the control device or exhaust point may have to meet certain criteria. Discuss with the DNR permit writer how the permit requirements could affect the design criteria for these items. These devices may also have requirements for installation of equipment to monitor operating parameters. Consider how these may affect the design of the process.

Certain requirements may dictate the type of raw materials you can use in your process. For example: painting, coating or printing operations may be limited on the VOC content of the coatings or inks applied or the amount used each month. Consider how this will affect your operations and make sure you can live with the limits.

Once You Have a Final Permit?

DO NOT just file this away as your ticket to operate. The final permit outlines all the conditions you will be required to meet on a regular basis. As with your draft permit, pay attention to all the little details.

Then make sure you have a system in place that will help you show DNR, or anyone else who asks, that you are meeting each condition in your permit.

If you're not sure how to get started, use the **Air Permit Compliance Calendar** (available from SBCAAP). It has sections to help you track monthly records. There are different reminders in pertinent months and there are blanks on each month's page for you to add your own reminders of specific deadlines included in your permit.

Since there is a five year life to your operation permit, it might even be a good idea to re-read your permit at regular intervals to make sure you haven't missed anything. If you ever have any questions about how to comply with a certain requirement, contact one of the folks in the box below.



Contacts for More Information or Assistance.

The Small Business Clean Air Assistance Program helps smaller businesses understand and comply with the Clean Air Act regulations. Contact one of the program's Clean Air Specialists for more assistance: Renée Lesjak Bashel at 608/264-6153 or Tom Coogan at 608/267-9214.



For further information on the operation permit process contact your DNR Regional or Service Center office shown on the **DNR Contact Fact Sheet** or the DNR's Central office at 608/266-6876.